NOTES ON THE BIOLOGY OF *SKELETODES TETROPS* NEWMAN (COLEOPTERA: CERAMBYCIDAE)

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Abstract

Aspects of the biology of *Skeletodes tetrops* including larvae, larval host plants, behaviour and variation in adult size, are discussed.

Introduction

Skeletodes tetrops Newman is a medium-size (*ca* 12 mm body length) cerambycid of eastern Australia. *S. tetrops* is known to attack a number of plants including *Citrus*, *Flindersia* and *Geijera* spp. (Rutaceae) as well as *Toona australis* (F. Muell.) Harms (Meliaceae), *Heritiera trifoliata* (F. Muell.) Kosterm. (Sterculiaceae) and *Araucaria cunninghamii* Ait. Ex. D. Don (Araucariaceae) (Duffy 1963, Webb 1987).

Duffy (1963) described the larvae and pupae of *S. tetrops* from infested *Citrus* spp. but gave no account of larval biology except that they feed in the subcortical region of the host. Little else is known except that the adults assume an unusual posture resembling that of a tipulid fly (Froggatt 1894).

Some futher aspects of the larval and adult biology of *S. tetrops* are presented.

Materials and Methods

Billets of cultivated grapefruit *Citrus* sp. were collected from Bankstown, a suburb of Sydney, New South Wales, in December 1985 and stored at ambient temperature under shelter. There was no sign of infestation at that stage. In May 1986 these billets were found to be infested with cerambycid larvae and then transfered to a cage with wire mesh (1 mm) and stored in the laboratory under controlled temperature (26^0C) and relative humidity (75%), awaiting emergence of adults. Large numbers of adults emerged in early July 1986, and then again in early August. A few more adults emerged during late September. Observations on feeding galleries and pupal chambers were made from billets dissected in January 1987.

On 2 September 1983, recently sawn *T. australis*, of unknown origin, was found to be infested with *S. tetrops*. Adults were collected following emergence and the damaged timber photographed.

Results and Discussion

Host Plants

S. tetrops has been recorded infesting a number of plant species, mostly belonging to the family Rutaceae. Cultivated *Citrus* spp. are the most commonly recorded hosts. Infestation of Meliaceae, Sterculiaceae and Araucariaceae suggests that the range of plant hosts may be more extensive than is presently known.

Larval Tunnelling

Larvae were found tunnelling in the cambium, leaving behind them tunnels tightly packed with frass. These tunnels were heavily convoluted (Fig. 1), the larva making optimum use of all available food. In some billets examined after the August emergence, no cambial tissue remained.

Just prior to pupation larvae tunnelled into the sapwood for a short distance and then bored longitudinally to form a pupation chamber (Fig. 2). The open end of the chamber appeared to be plugged only by frass. Pupation took place after the larva had turned to face the plugged end of the chamber. Adult emergence occured through the plugged end of the pupal chamber.

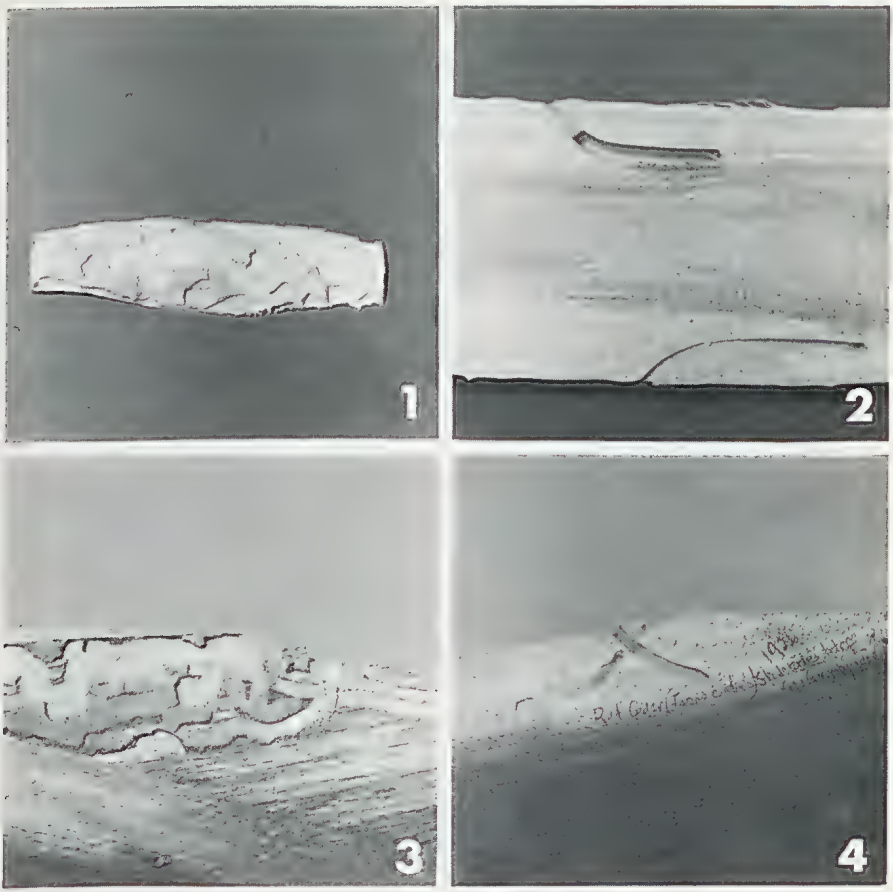
Larval tunnelling and pupal chamber formation appeared to be similar in at least one other host, *Toona australis* (Figs. 3,4) and resembled that of a number of other Australian Phoracanthini (Duffy 1963).

Adult size Variation

Considerable variation in adult size was observed. Adults ranged in body length (mandibles to tip of elytra) from 7.2 to 15.1 mm ($\bar{x}$ = 12.2 $\pm$ 2.6 mm, n = 104). Adults which emerged in early July were generally larger ($\bar{x}$ = 14.7 $\pm$ 1.7 mm, n = 48) than those which emerged during early August ($\bar{x}$ = 10.2 $\pm$ 2.0, n = 52) and late September ($\bar{x}$ = 8.7 $\pm$ 1.1 mm, n = 4). This size reduction, a phenomenon common to many Australian cerambycids (Duffy 1963), is presumably, due to diminishing food resources or available moisture in the timber billets.

Camouflage

Adults of *S. tetrops* are well camouflaged on the bark of *Citrus* spp. The elytral colour and pattern closely resemble that of the bark. When resting on the bark adults assumed the tipulid-like posture described by Froggatt (1894). Adults remained rigidly in this position despite attempts to dislodge them.



Figs 1-4. Tunnels produced by larvae of *Skeletodes tetrops*: (1) Convoluted tunnelling in the cambium of Citrus sp., (2) Pupal chamber in *Citrus* sp., (3) Tunnelling in the cambium of *Toona australis*, (4) Pupal chamber in *Toona australis*.

References

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